

Appl. No. 10/605,502
Amdt. dated August 1, 2006
Reply to Office action of May 1, 2006

Amendments to the Claims:

1. (currently amended) A keyboard comprising:
- 5 a key module comprising at least one key cell with an output end being selectively connected to one of a first voltage and ~~or a second voltage~~;
 - a detect circuit electrically connected to the output end of the key cell for generating a control signal whenever ~~the voltage on~~ the output end of the key cell becomes to connect to the other of the second voltage or and the first voltage;
 - 10 a parallel-to-serial register electrically connected to the output end of the key module; and
 - a processor electrically connected to the parallel-to-serial register and the detect circuit for controlling the parallel-to-serial register according to the control signal.
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2. (currently amended) The keyboard of claim 1, wherein the detect circuit comprises at least one capacitor corresponding to and electrically connected to each of the at least one key cell within the key module.
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3. (currently amended) The keyboard of claim 2, wherein the detect circuit further comprises an amplifying circuit electrically connected to the capacitor for amplifying the voltage in the capacitor.
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4. (currently amended) The keyboard of claim 3, wherein the detect circuit further comprises a set of comparators electrically connected to the amplifying circuit for comparing whether the voltage output from an output end of the amplifying circuit is in a predetermined range and generating the control signal accordingly.

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5. (original) The keyboard of claim 4, wherein the set of comparators comprises a positive comparator for generating the control signal when the voltage output from the output end of the amplifying circuit exceeds a positive reference voltage, and a negative comparator for generating the control signal when the voltage output from the output end of the amplifying circuit is lower than a negative reference voltage.
6. (original) The keyboard of claim 4, wherein the detect circuit further comprises an OR gate with its input ends electrically connected to the output ends of the set of comparators, and its output end for outputting the control signal.
7. (new) A keyboard comprising:
a key module comprising at least one key cell with an output end;
a detect circuit electrically connected to the output end of the key cell for detecting a transient voltage at the moment when the key cell is pressed or released and then generating a control signal;
a parallel-to-serial register electrically connected to the output end of the key module; and
a processor electrically connected to the parallel-to-serial register and the detect circuit for controlling the parallel-to-serial register only upon reception of the control signal.
8. (new) The keyboard of claim 7, wherein the detect circuit comprises at least one capacitor corresponding to and electrically connected to the at least one key cell within the key module for detecting the transient voltage.
9. (new) The keyboard of claim 8, wherein the detect circuit further comprises a comparator electrically connected to the capacitor for generating the control signal by comparing the transient voltage with a reference voltage.

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10. (new) The keyboard of claim 9, wherein the detect circuit further comprises an amplifier electrically connecting the capacitor and the comparator for amplifying the transient voltage.

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11. (new) The keyboard of claim 8, wherein the detect circuit further comprises a set of comparators electrically connected to the capacitor for generating the control signal by comparing the transient voltage with reference voltages.

10 12. (new) The keyboard of claim 11, wherein the set of comparators comprises a positive comparator and a negative comparator for comparing the transient voltage with a positive reference voltage and a negative reference voltage, respectively, to generate the control signal.

15 13. (new) The keyboard of claim 12, wherein the detect circuit further comprises an amplifier electrically connecting the capacitor and the set of comparators for amplifying the transient voltage.

20 14. (new) The keyboard of claim 12, wherein the detect circuit further comprises an OR gate electrically connected to the set of comparator for outputting the control signal.

25 15. (new) The keyboard of claim 14, wherein the detect circuit further comprises an amplifier electrically connecting the capacitor and the set of comparators for amplifying the transient voltage.